

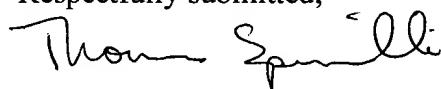
at cont'd the center thereof, and a mechanism for adjusting eccentricity of the hermetic unit 525 can slide on the inner surface of the first receptacle 523. This results in the camera head 503 having a small outer diameter

REMARKS

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "Version with markings to show changes made."

Applicants submit that the foregoing amendments to the specification do not introduce new matter into the application. Early and favorably consideration of the present application, as amended herein, is respectfully requested.

Respectfully submitted,



Thomas Spinelli
Registration No.: 39,533

Scully, Scott, Murphy & Presser
400 Garden City Plaza
Garden City, New York 11530
(516) 742-4343
TS:cm

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

Paragraph beginning at line 23, page 17 has been amended as follows:

The focusing adjustment screw 43 is loosened in order to move the device locking frame 44 and CCD 36 alike. The position of the CCD 36 relative to the image formation optical system 34 is previously adjusted in line with the focusing groove 42 [adjustment screw 43] that is formed in the outer optical frame 39 along the optical axis. Thereafter, the outer optical frame 39 is locked in the first hermetic frame 27, and the lines are connected. Thereafter, the first hermetic frame 27 and second hermetic frame 29 are joined hermetically and assembled.

1002240 52106260

Paragraph beginning at line 23, page 41 has been amended as follows:

In a TV camera 250 that is an imaging unit for endoscopes of the present embodiment, the image formation optical system 34 is incorporated in a portion of a hermetic frame 251 located on the side of the eyepiece unit 13 of the endoscope. The rear end of an outer optical frame 252 that encircles the outer circumference of the image formation optical system 34 serves as the front end 226. The inner ring 218 is sandwiched between the front end 226 and a presser ring 219 fixed to the inner surface of the hermetic frame 251 [252] while being permitted to solely rotate. The compression coil spring 227 is interposed between the front end of the imaging device frame 208, which holds the CCD 36, and the front end 226 that is the rear end of the outer optical frame 252 [251]. The imaging device frame 208 slides in contact with the inner surface of the inner ring 218. The compression coil spring 227 always constrains the imaging device frame 208 to move in one optical-axis direction.

Paragraph beginning at line 15, page 42 has been amended as follows:

A casing member 253 that locks the coupler 21 is mounted on the outer circumference of the front part of the hermetic frame 251 [252]. The outer ring 217 used to focus the TV camera is interposed between the rear end of the casing member 253 and the step of the hermetic frame 251 while being permitted to move in circumferential directions.

Paragraph beginning at line 7, page 60 has been amended as follows:

Next, an imaging unit for endoscopes whose camera adaptor and camera head are identical to the camera adaptor 302 of the TV camera 300 and the camera head 303 [adaptor 302] thereof respectively, which are described referring to Fig. 9, will be described referring to Fig. 12. The camera adaptor 302 includes electric circuits. Herein, a signal is transferred and received between the camera adaptor and camera head through connectors, and eccentricity of an image can be avoided.

Paragraph beginning at line 12, page 62 has been amended as follows:

The first plug 513 is concentric with a second cover glass 515 hermetically locked in the circular opening of the rear end of the adaptor housing 506. The plurality of contact pins 514 is fixed to the annular portion around the second cover glass 515, and kept hermetically using a vitreous hermetic seal 516. Namely, the contact pins 514 are passed through bores whose diameter is larger than the diameter of the contact pins 514. A fused glass is poured into the bores in which the contact pins are fitted, whereby the vitreous hermetic seal 516 is formed. As mentioned above, the center of the rear end of the adaptor housing 506 is formed as an optical path, and surrounded with the contact pins 514. This leads to the small outer diameter of the camera adaptor [optical adaptor unit] 502.

Paragraph beginning at line 13, page 63 has been amended as follows:

Moreover, a third metallic plug 526 is hermetically locked in the opening of the rear end of the hermetic unit 525. Contact pins 527 are hermetically fixed to the third plug 526 using a vitreous hermetic seal 528 so that the contact pins 527 will jut inwards and outwards the third plug 526. Within the hermetic unit 525, the contact pins 527 and leads 535 jutted out of the back of the CCD 36 are linked by harnesses 529. Outside the hermetic unit 525, a flexible substrate 530 is coupled to the contact pins 527 jutted out of the hermetic unit 525, and to a connector 531. The connector 531 consists of a second plug 532 and a second receptacle 533. The rear end of the second receptacle 533 [plug 532] is coupled to harnesses 534 that constitute the signal cable 9.

Paragraph beginning at line 22, page 64 has been amended as follows:

Consequently, the TV camera 500 provides the same advantages as the TV camera 300 that is an imaging unit for endoscopes and described referring to Fig. 9. In addition, since the camera adaptor 502 includes neither a focusing mechanism nor an eccentricity adjusting mechanism, and the adaptor housing 506 need not have a path linking the exterior and interior of the adaptor housing, the TV camera 500 can be kept so hermetic as to be autoclaved. Moreover, while the camera adaptor 502 and camera head 503 are kept so hermetic as to be autoclaved, they can transfer or relay an electric signal. Moreover, the center of the camera adaptor 502 [TV camera 500] is formed as an optical path, and surrounded with the contact pins. This results in the camera adaptor 502 having a small outer diameter. Even in the camera head 503, the hermetic unit 525 in which the imaging optical system 501 is stowed in the center thereof, and a mechanism for adjusting eccentricity of the

hermetic unit 525 can slide on the inner surface of the first receptacle 523. This results in the camera head 503 having a small outer diameter.

100-200-527060